

wherein Z is a carbon atom or R<sup>1</sup> - B fragment

p is 1, 2 or 3

q is 3-p and

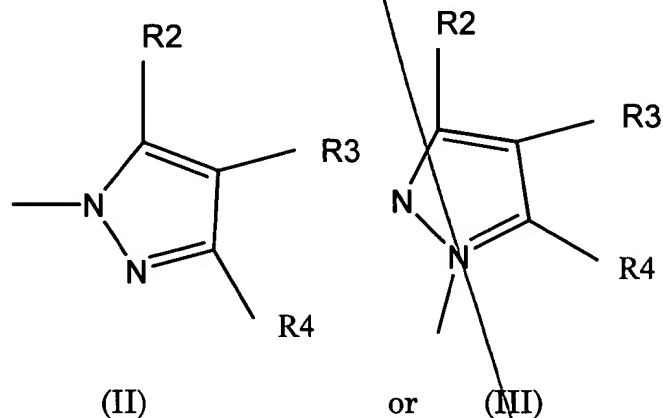
A is a counterion

R<sup>1</sup> is: (i) hydrogen, aryl or aralkyl each optionally substituted

with from one to five halogen or C<sub>1</sub> to C<sub>6</sub> alkyl groups; or (ii) C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkenyl or C<sub>1</sub> to C<sub>6</sub> alkynyl each optionally substituted with one or more halogen atoms

each L is covalently bound to Z and is independently selected

from a group of the formula (II) or (III)



in which R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are independently selected from:

- (i) halogen, cyano, nitro, sulphonyl, amino, C<sub>1</sub> to C<sub>6</sub> alkylamino, C<sub>1</sub> to C<sub>6</sub> alkylamido, carboxyl, C<sub>1</sub> to C<sub>6</sub> alkyloxycarbonyl, hydroxy,

C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> alkylcarbonyloxy, C<sub>1</sub> to C<sub>6</sub> alkylcarbonyl C<sub>1</sub> to C<sub>6</sub> haloalkoxy and hydrogen;

(ii) aryl or aralkyl each optionally substituted on the aryl ring or, for aralkyl, on the alkylene chain with from one or more of the groups mentioned under (i) above; and

(iii) C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> alkenyl or C<sub>1</sub> to C<sub>6</sub> alkenyl or C<sub>1</sub> to C<sub>6</sub> alkynyl each optionally substituted with one or more of the groups mentioned under (i) and (ii) above;

R<sup>4</sup> and or R<sup>2</sup> is -(CX<sub>2</sub>)<sub>n</sub>X wherein n is 0 or a positive integer from 1 to 6 and X is halogen; or R<sup>4</sup> is orthodihalogenated or orthodiperhalomethylated aryl, optionally further substituted on the aryl ring; or

R<sup>2</sup> and R<sup>3</sup> or R<sup>3</sup> and R<sup>4</sup> are linked so as to form a fused aromatic or non-aromatic ring system with the pyrazolyl ring of L; and

M is a trivalent lanthanide metal ion.

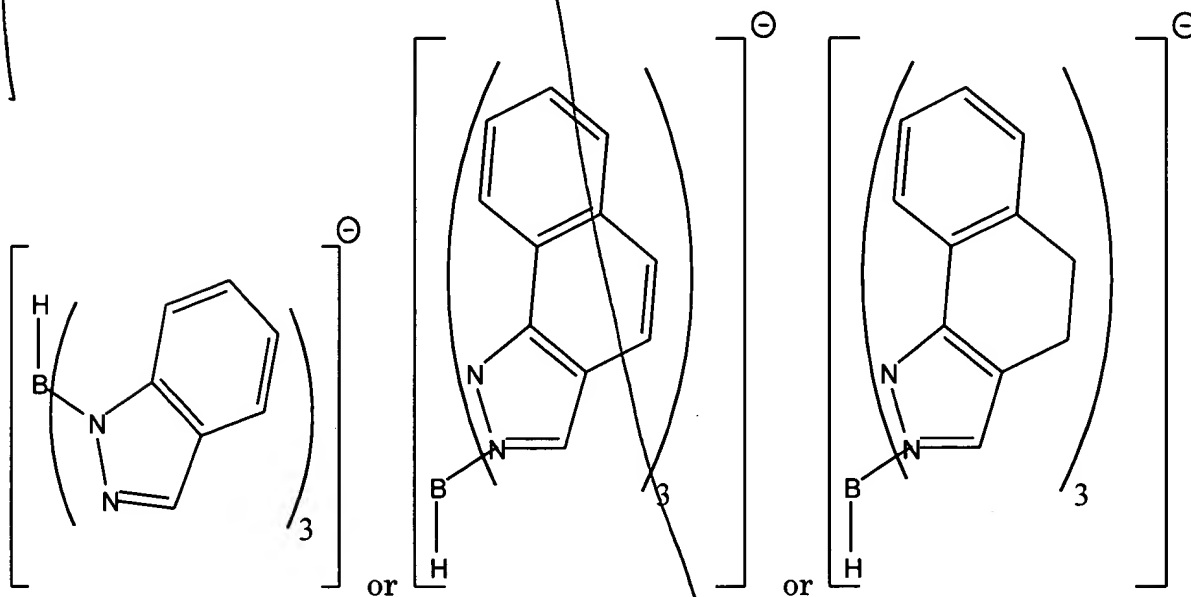
48. Complex as claimed in claim 47, wherein M is Tb, Ce, Eu, Er, Gd, Tm, Sm or Nd.

49. Complex as claimed in claim 47, wherein R<sup>4</sup> is trifluoromethyl.

50. Complex as claimed in claim 47, wherein  $R^3$  is hydrogen and  $R^2$  is trifluoromethyl.

51. Complex as claimed in claim 47, wherein Z is H-B.

52. Complex as claimed in claim 47, wherein  $ZL_3$  is



53. Complex as claimed in claim 47, wherein A is  $CF_3SO_3^-$ , halide, nitrate or perchlorate.